Eata Battery

Lithium Nickel Manganese Oxide (High Voltage)

Catlog Number: BMCM-0042

Description

High-voltage spinel LNMO designed for cobalt-free battery systems, providing a significant 4.7V plateau for increased energy density research.

Basic Information

Chemical Formula: $LiNi_{0.5}Mn_{1.5}O_4$

Appearance: Dark Grey Powder

Molecular Weight: 182.7 g/mol

D50 Particle Size: 10 - 15 μm

Tap Density: ≥ 2.0 g/cm³

BET Surface Area: 0.5 - 1.0 m²/g

1st Discharge Capacity: ≥ 132 mAh/g

1st Coulombic Efficiency: ≥ 91%

pH Value: ≤ 9.5

Moisture Content: ≤ 0.05%

Magnetic Impurities: ≤ 50 ppb

Li/Na Content: 3.7 - 4.0%

Ni Content: 15 - 17%

Mn Content: 43 - 46%

Co Content: N/A

Transition Metals: Ni-Mn Spinel

Crystal Structure: Spinel Cubic

Compaction Density: ≥ 2.8 g/cm³

Storage Conditions: Sealed, Dry

Conductivity: ~10^{-5} S/cm

Voltage Range: 3.5 - 4.9 V

Purity: ≥ 99.9%

Primary Application: High-voltage systems

Thermal Stability: Excellent

Cycle Life: > 600 cycles

⚠ For Research or Industrial Raw Materials, Not For Personal Medical Use!

Eata Battery delivers the world's battery makers a single, reliable source for every high-performance raw material—cathode to collector, catalyst to membrane—so you can design, scale and ship next-generation batteries faster.

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